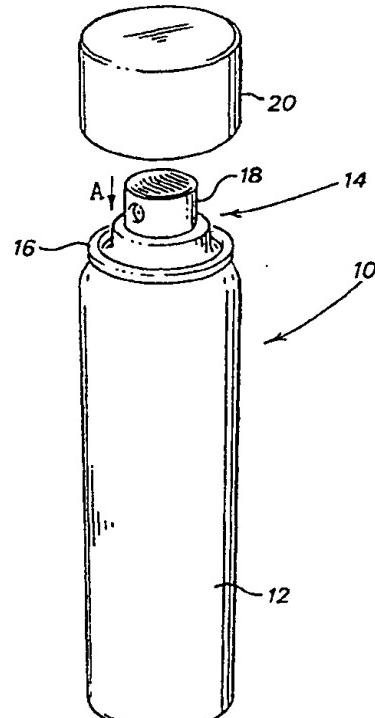


PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> : <b>B65D 83/14</b>		A1	(11) International Publication Number: <b>WO 00/24650</b> (43) International Publication Date: <b>4 May 2000 (04.05.00)</b>
<p>(21) International Application Number: <b>PCT/IB99/01183</b></p> <p>(22) International Filing Date: <b>24 June 1999 (24.06.99)</b></p> <p>(30) Priority Data: 98/9822                    28 October 1998 (28.10.98)            ZA</p> <p>(71)(72) Applicant and Inventor: <b>DUFFY, Gavin, Richmond [ZA/ZA]; 24 Montrose Road, Sunninghill, 2196 SANDTON (ZA).</b></p> <p>(74) Agents: <b>GILSON, David, Grant et al.; Spoor and Fisher, PO Box 41312, 2024 Craighall (ZA).</b></p>		<p>(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b> <i>With international search report.</i></p>	
<p>(54) Title: BEVERAGE CONTAINER FOR A CARBONATED BEVERAGE</p> <p>(57) Abstract</p> <p>This invention relates to a beverage container (10) for a carbonated beverage. The container (10) includes a beverage holder (12), a carbonated beverage held under pressure within the beverage holder, and a dispensing device in the form of an atomiser (14) for dispensing the beverage from the beverage holder in a fine spray. The atomiser (14) is movable between an open condition in which it allows the pressurised beverage to be discharged from the container, and a closed condition in which the beverage holder (12) is hermetically sealed so as to capture the pressurised beverage within the container.</p> <p><i>aerosol valve delivers liquid.</i></p> 			

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	CR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakhstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LJ	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

- 1 -

## BEVERAGE CONTAINER FOR A CARBONATED BEVERAGE

### BACKGROUND OF THE INVENTION

THIS invention relates to a beverage container, and in particular to a beverage container for a carbonated beverage.

Many different types of beverage containers are known. Conventional beverage containers for carbonated beverages generally are hermetically sealed so that, prior to opening the container, the carbon dioxide in the beverage is retained within the container.

Typically, these types of containers include a removable cap or the like which breaks the hermetic seal when removed and which, once removed, cannot be replaced so as to properly seal the container. Accordingly, if the beverage is only partially consumed, carbon dioxide liberated from the remaining portion of the beverage is allowed to escape from the container, and the carbon dioxide content of the beverage is gradually depleted until the beverage becomes flat.

CONFIRMATION COPY

- 2 -

Generally, the known types of beverage containers for carbonated beverages are designed for pouring a beverage out of the container. Containers having nozzles which can discharge a beverage in a jet are also known, but these types of containers typically form part of a relatively large apparatus for dispensing a beverage into a cup or the like.

It is an object of the present invention to provide a hand-held beverage container which is designed to dispense a carbonated beverage in a fine spray and which, when partially empty, is designed to maintain a hermetic seal so as to prevent carbon dioxide in the beverage from escaping from the container.

#### SUMMARY OF THE INVENTION

According to the invention there is provided a beverage container comprising:

a beverage holder;

a beverage held under pressure within the beverage holder; and

a dispensing device in the form of an atomiser for dispensing the beverage from the beverage holder in a fine spray, the atomiser being movable between an open condition in which it allows the pressurised beverage to be discharged from the container, and a closed condition in which the beverage holder is hermetically sealed so as to capture the pressurised beverage within the container.

- 3 -

In a preferred form of the invention, the beverage is a carbonated, alcoholic beverage.

Typically, the container includes a removable cap for covering and protecting the atomiser.

In one embodiment, the atomiser carries a flexible extension tube for conveying the beverage to a user's mouth.

#### BRIEF DESCRIPTION OF THE DRAWINGS

The invention will now be described in more detail, by way of example only, with reference to the accompanying drawings in which:

**Figure 1** shows a perspective view of a beverage container according to one embodiment of the present invention; and

**Figure 2** shows a perspective view of a beverage container according to another embodiment of the invention.

#### DESCRIPTION OF THE PREFERRED EMBODIMENTS

Figure 1 of the drawings illustrates a beverage container 10 according to the present invention. As can be seen, the container 10 includes a beverage holder 12 and a dispensing device in the form of an atomiser 14 connected to the top

- 4 -

of the beverage holder. The atomiser forms part of a container top 16 which is fitted to the top of the holder 12 so as to form a hermetic seal between the container top and the holder.

In this embodiment of the invention, the holder 12 is formed from aluminium and the atomiser 14 is formed from a plastics material.

The atomiser includes a displaceable head 18 which projects upwardly, as shown, and which can be depressed in the direction of the arrow A. The head 18 is biased into a raised position, as illustrated in Figure 1, in which the atomiser 14 is maintained in a closed condition. In this condition, fluid is prevented from flowing through the atomiser. When the head 18 is depressed in the direction of the arrow A, the atomiser 14 is drawn into an open condition for discharging fluid from the container.

A carbonated beverage (not visible) is introduced into the beverage holder 12 during the assembly of the container 10 so as to be held under pressure within the holder 12. The carbonated beverage in this case is an alcoholic beverage such as, for example, whiskey and soda water. It should be appreciated though that other suitable carbonated beverages could also be contained within the holder 12.

A cap 20 is provided for covering and protecting the atomiser 14 when the atomiser is not required, for instance when the container 10 is transported or stored prior to use.

In practice, a pressurised beverage held within the holder 12 is dispensed by

arrow A. This  
the pressurised  
e a sufficient  
eased so as to  
miser 14. The  
when it is in  
in the raised  
verage holder

a container  
le discharge  
the atomiser  
ontainer 110  
ner 10 of the

d 124 of the  
d 118 of the  
the beverage  
scharge tube  
o the user's

ther of the  
ge holder in  
consume a

- 6 -

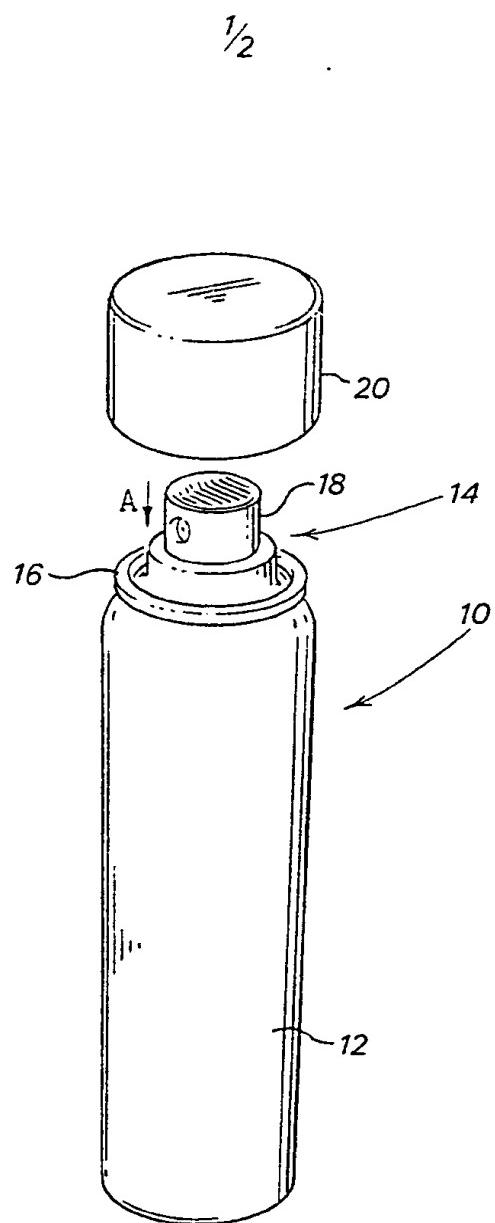
carbonated beverage over a relatively long time without the beverage becoming flat. Also, the beverage container of the invention allows a user to introduce a carbonated beverage into his or her mouth in a fine spray.

CLAIMS

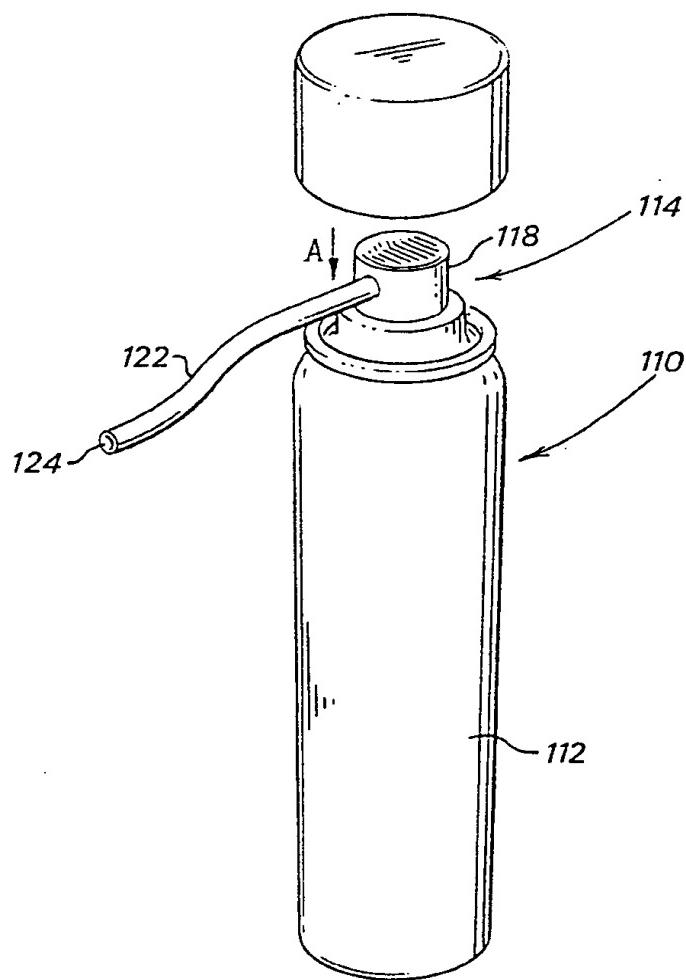
1. A beverage container comprising:
  - a beverage holder;
  - a beverage held under pressure within the beverage holder; and
  - a dispensing device in the form of an atomiser for dispensing the beverage from the beverage holder in a fine spray, the atomiser being movable between an open condition in which it allows the pressurised beverage to be discharged from the container, and a closed condition in which the beverage holder is hermetically sealed so as to capture the pressurised beverage within the container.
2. A beverage container according to claim 1, wherein the beverage is a carbonated, alcoholic beverage.
3. A beverage container according to either claim 1 or claim 2, wherein the container includes a removable cap for covering and protecting the atomiser.
4. A beverage container according to any one of the preceding claims, wherein the atomiser carries a flexible extension tube for conveying the beverage to a user's mouth.

- 8 -

5. A beverage container substantially as herein described with reference to either of the illustrated embodiments.



— 1 —

$\frac{2}{2}$ 

— 2 —

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT IB 99/01183

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 B65D83/14

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 296 11 611 U (GLATSCHKE) 5 December 1996 (1996-12-05) page 4, line 32 - line 34; figures -----	1-3
Y	DE 92 17 576 U (REINELT & TEMP GMBH) 27 May 1993 (1993-05-27) * Figur (Ref. 16) *	4
		4

<input type="checkbox"/>	Further documents are listed in the continuation of box C
<input checked="" type="checkbox"/>	Patent family members are listed in annex.

'Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family
--	--

Date of the actual completion of the international search	Date of mailing of the international search report
7 October 1999	20.01.00
Name and mailing address of the ISA  European Patent Office, P B 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl. Fax: (+31-70) 340-3016	Authorized officer  Martin, A

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT IB 99/01183

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 29611611 U	05-12-1996	NONE	
DE 9217576 U	27-05-1993	NONE	